

## Collecting Lepidoptera in Britain during 1970

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The new year opened with a very cold snap which was quickly followed in the second week of January by an extremely mild period which lasted almost to the end of the month. It brought forth most of the early geometers, in particular *Theria rupicapraria* Schiff., *Phigalia pedaria* F., and *Erannis leucophaearia* Schiff. Mr R. F. Bretherton and I found a good many fallow stems inhabited by *Aegeria flaviventris* Stand. on Horsell Common on February 4 and several more there in company with Mr and Mrs J. A. C. Greenwood on the 8th. But some real winter supervened shortly afterwards with a blizzard on the 12th. In fact, there was hardly a mild day for the rest of the month. March opened with a very bleak spell with further heavy snowfalls on the 4th. It was not till the 15th that *Achlya flavicornis* L. appeared at Horsell with the first Brimstone on the 20th, quite a late date for its emergence from hibernation. I travelled to Kent on this day and on March 22 I found *Archiearis parthenias* L. flying in numbers round the birch tops in the Hamstreet woods.

The willows were only just starting to bloom when Mr J. L. Messenger accompanied me on March 25 to Hope Cove near Salcombe to spend the Easter holiday period. But a very chilly week-end awaited us, no collecting being undertaken, though we went over to Mr Geoffrey Cole at Slapton, but drew a blank. We motored home the last day of March somewhat empty-handed. The first ten days of April were equally unpropitious with a bitter east wind which was still prevailing when I travelled to Bristol on the 10th for a conference of the British Ornithologists Union. On the 13th I went on to stay with Mr Ronald Demuth at Oakridge at the southern end of the Cotswolds. By this time the weather had relented. We were met with sun and warmth when we motored to Wyre Forest on the 14th in the hope of seeing *Endromis versicolor* L., but we saw no sign of it and were no doubt too early in this late season. *A. parthenias* L. were flying in plenty and not difficult to net as they settled on the willow bloom which also attracted several *Inachis io* L. and *Polygonia c-album* L. A good many noctuids visited my host's trap that night, including *Cerastis rubricosa* Schiff., *Xylocampa areola* Esp., *Eupsilia transversa* L., *Earophila badiata* Schiff., and *Biston strataria* Hufn. I then went on to stay with my relative Gen. Beddington, near Blandford, seeing the first *Pieris rapae* L. in his garden on April 18. The latter part of the month was for the most part mild, but one *Odontosia carmelita* Esp. only appeared at Horsell the last day of April.

May was ushered in with real summer temperature of nearly 70°F. On the 2nd I paid my first visit of the season to the New Forest, staying with Rear Admiral D. Torlesse at Sway, and it proved a very propitious night for our m.v. lights

run on the boundary of Rhinefields Enclosure, where we saw as many as 25 species of the "macros". Among the early arrivals were male *Cleora cinctaria* Schiff. to be followed by *Orthosia miniosa* Schiff., but a most welcome visitor was a female *Lithophane socia* Hufn. which obliged eventually with a lot of ova laid on netting placed over a small box, as also did another of this species which Col. Mackworth Praed kindly let me have from his trap at Burley. From both these insects, we bred out some fine specimens in the autumn, feeding the larvae mainly on privet. Other species of note on this productive night were a number of *Polyploca ridens* F., a single *O. carmelita* Esp., also *Drymonia ruficornis* Hufn., *Panolis piniperda* Schiff., *Colocasia coryli* L., *Menophra abruptaria* Thunb., *Trichopteryx carpinata* Borkh. and finally a *Bapta distinctata* H. & S. (*pictaria* Curtis), a very late date for this local geometer which I had not seen before in this part of the Forest. The following day topped the seventies, bringing out many Whites, chiefly *Pieris rapae* L. and *P. brassicae* L. together with a lot of *Gonopteryx rhamni* L. and several *Polygonia c-album* L. The heatwave persisted on my return to Surrey, where I ran my light on the night of May 5 in the vicinity of Gracious Pond on the edge of Chobham Common. Again a number of interesting species were seen up till midnight. One of the earliest to appear was a female of *Saturnia pavonia* L. from which a large batch of ova was obtained and most of them attained the pupal state. Other insects seen included *Drepana lacertinaria* L., *Notodonta ziczac* L., *D. ruficornis* Hufn., *Lophopteryx camelina* L., *C. coryli* L., *Polyploca ridens* F., *Eupithecia nanata* Hübn., *Selenia tetralunaria* Hufn. and *Aethelura punctulata* Schiff. The next evening of the 6th Mr R. Bretherton and I visited Ranmore Common after dark where we were pleased to see several *Boarmia consonaria* Hübn., also *Lycia hirtaria* Clerck, *P. ridens* F., *Orthosia munda* Schiff., and *Pachynemina hippocastanaria* Hübn. The warm spell continued till the 9th when in my sister's garden at Virginia Water among visitors to my light were *O. carmelita* Esp., *Pheosia gnoma* L., *camelina* L., half a dozen *C. coryli* L., a fine *Mimas tiliae* L., and many *Eupithecia abbreviata* Steph. On May 12 I set out for a three-week stay in Central Italy and, returning on June 2, I was welcomed once more by a remarkable heatwave, which was to last for the next three weeks and provide some almost record temperatures reaching just 100°F in the shade in the Lake District on June 11.

On June 5 in the Chiddingfold area when I was with Mr J. Messenger, *Leptidea sinapis* L. was flying in some numbers. This butterfly seems to be coming back to its former haunts which is very encouraging. *Clossiana euphrosyne* L. and *C. selene* Schiff., were also on the wing with a good many *Anthocharis cardamines* L., late *Gonepteryx rhamni* L. and *Pyrgus malvae* L., while *Minoa murinata* Scop., was to be flushed from the wood spurge, its foodplant. The following night some forty

species came to my m.v. light run in my sister's garden at Virginia Water. Among these were several *Drepana binaria* Hufn., *Nola confusalis* H.-S., *Ectropis extersaria* Hübn., also *Bena prasinana* L., *Drymonia trimacula* Esp., *Notodonta dromedarius* L., *Pterostoma palpina* Clerck, *Bapta bimaculata* E., *Eupithecia tantillaria* Boisd., and *Cosymbia punctaria* L., but among the last arrivals was a most unexpected visitor *Hadena conspersa* Schiff., which was well separated from its normal terrain on downland. The thermometer exceeded 80°F on June 7 which provided one of the best nights when Mr R. Bretherton accompanied me to a heathy area near Winterfold. Insects came flocking in as we lit up at 10 p.m. and continued till 1 a.m. by which time we had recorded 80 species of macros. Early arrivals were *Hepialus vellea* Hübn. and *Arctia villica* L. followed by quite a dozen *Apatelealni* L., including some dark examples. *Bomolocha fontis* Thunb. was a numerous insect from the bilberry. Both sexes were on the wing with several *Erastria venustula* Hübn., *Cepphis advenaria* Hübn. and both the Elephant Hawks which were the only Sphingids. The Notodonts comprised *Drymonia trimacula*, *Stauropus fagi* L., *Lophopteryx camelina* L. and *P. palpina*. Among noctuids were *Tethea* or Schiff., *T. fluctuosa* Hübn., *Apatele leporina* L., *Hadena contigua* Schiff., *Plusia pulchrina* Haworth, and the geometers included *Cosymbia linearia* Hübn., *E. lariciata* Freyer, *Lamproteryx suffumata* Schiff., *Boarmia punctinalis* Scop., and *Bupalus piniaria* L.

There were daily temperatures in the 80's all the subsequent week. On June 10 Mr Messenger and I revisited the Dunsfold woods. Both of the Pearl-bordered Fritillaries were flying with late Brimstones and Small Whites. That night—another prolific one—saw me near Bisley when 60 species came to light up till midnight. *Mimas tiliae* and a huge female Fox moth were early comers. Half of the species noted were Geometers, among which were *Mysticoptera sexalisata* Retz., *Euphyia unangulata* Haworth, *Euchoeca nebulata* Scop., *Hydriomena coerulea* F., *Lycometra ocellata* L., *Perconia strigillaria* Hübn. Females of *Bupalus piniaria* L. and a very dark female *Dyscia fagara* Thunb., *Laotoë populi* L. and *Hyloicus pinastri* L. were the only hawkmoths and the last to arrive. Two days later, I was once more in Kent collecting in the Hamstreet area where another female Fox Moth (*M. rubi* L.) ushered in the evening with a female *Dasychira pudibunda* L. Shortly afterwards a couple of *Dipthera alpium* Osbeck arrived with a rush of *Deilophila elpenor* L. The last of 34 species seen was *Stauropus fagi* L. It was again very warm on the 13th when I visited Dungeness where many Common Blues were flying. The willow bushes were all devoured by the Brown-tail (*Euproctis chryssorrhæa* L.). A further night in the Orlestone woods at Hamstreet produced two more *D. alpium* with an outside female Privet Hawk (*Sphinx ligustri* L.), also *Tethaea* or Schiff., *Thyatira batis* L., *Notodonta ziczac* L., *Aplecta nebulosa* Hufn., *Cosym-*

*bia porata* L., *Semiothisa notata* L., and *Sterrhia subsericeata* Haworth. The hot spell was over when I returned to Surrey on June 15. But when I ran my m.v. light on 19th at Virginia Water warm conditions had returned, where I noted 50 species up to 12.30 a.m. A newcomer to this locality was *Erastria venustula* Hübn. Also seen was *Boarmia roboraria* Schiff. in a dark form with *Comibaena pustulata* Hufn., *Tethea ocularis* L., and *Apamea epomidion* Haworth. Another night, near Bisley, on June 20, after a day of 79°F, brought just over fifty species, including *Apoda avellana* L., *H. pinastri*, *S. fagi*, *Geometra papilionaria* L., *Cidaria fulvata* Forst., *Eupithecia arceuthata* Freyer, *M. sexualisata*, *B. roboraria* and *Ellopiia fasciaria* L.

On June 22 under very warm conditions Mr Messenger and I set out en route for Eire which we last visited together in 1965. That night we made Tintern our headquarters with quite successful collecting in the woods overlooking the river Wye. We were favoured with four male *Drepana harpagula* Esp. which I last took there in 1964. *Abraxas sylvata* Scop. and *Cleora repandata* L. were common. Among 45 other species were *S. fagi*, *Tethea fluctuosa* Schiff., *Craniophora ligustri* Schiff., *Eilema sororcula* Hufn., *Laspeyria flexula* Schiff., *Discoloxia blomeri* Curtis, *Hydrelia testaceata* Don., several fresh *Eupithecia egenaria* H.-S., *Eupithecia fraxinata* Crewe, *Horisme tersata* Schiff., and two *Anaplectoides prasina* Schiv. The next morning unfortunately the heatwave had given way to very dull and rainy conditions when we set out from Tintern in the afternoon for Swansea, where we embarked late that evening on the car ferry Innisfallon after having surveyed some of the Gower Peninsula in the vicinity of the Mumbles. But the sea was far from kind and we had a very choppy crossing to Cork, which we reached at 7.30 a.m. with plenty of rain and wind to welcome us in Ireland. Halting at Mallow for a late breakfast, we motored on via Limerick and Ennis arriving at Lisdoonvarna about lunchtime on June 24. As in 1965 our haven was the very comfortable Imperial Hotel. That afternoon we explored our old haunts in the Burren, visiting the rough hilly country just west of Ballyvaughan where we were pleased to find *Leptosia sinapis* L. still on the wing, though mostly past its best. On the way back we called on Mr Pelham Clinton and Mr J. Bradley, who were staying at the fairly new Gregan Castle Hotel, situated at the bottom of the Corkscrew Hill on the road to Lisdoonvarna. Together with Mr and Mrs Denzil Fennell they had arrived a few days before us and were fortunate enough to come in for the last two days of the hot spell with very good collecting results, especially among the smaller lepidoptera.

The next morning, the 25th, we set our static trap up at the Ballynalacken Hotel, thanks to the kindness of Mr and Mrs O'Callaghan, and we then proceeded to the flat ground bordering the coast road. Here we flushed a good many of the large form of *Setina irrorella* L. together with several

*Zygaena purpuralis* Brünn, *Epirrhoë tristata* L., also some very bright and large *Polyommatus icarus* Rott. and worn *Cupido minimus* Fuessl. The afternoon we penetrated inland to the district round Corofin which is studded with small lakes. Here we found the Transparent Burnet quite numerous, while the bog myrtle was well patronised by larvae of *Orthosia gracilis* Schiff. in tents of all sizes. Also on wing was that most attractive little Pyrale *Pyrausta sanguinalis* L. As the evening turned fairly mild and still, we ran our portable m.v. light in a hollow near the coast below Ballinalacken, a spot which had served us well five years previously. Up till 1 a.m. no less than 60 species of macros were noted. Of the early arrivals there was a short run of *Deilephila porcellus* L. which was followed by a number of *S. irrorella* males and quite a procession of the delightful little geometer *Perizoma blandiata* Schiff. A couple of fine *Plusia bractea* Schiff. were fairly late-comers together with *P. festucae* L. Other species worth recording included some very dark *Caradrina blanda* Schiff. *Diarsia brunnea* Schiff., pale *Aplecta nebulosa* Hufn., *Hemitea aestivaria* Hübn., *Cidaria fulvata* Forst., *Eupithecia distinctaria* H.-S., *E. subumbinata* Schiff., *E. absinthiata* Clerck, *Cleora lichenaria* Hufn. and a great variety of *Cleora repandata* L. June 26 was so wet that we did not go out till the afternoon when we visited Ballyvaughan where Wood Whites and Burnets were once more on the wing with many *Aphantopus hyperanthus* L. We saw *P. sanguinalis* L. again, very difficult to follow on the rocky hillside which also harboured several nests of *Eriogaster lanestris* L. mostly with nearly full-fed larvae. We attempted night operations on the coast but a gale got up and our only visitors were some *Hepialus humuli* L. of both sexes. We went over again to the lake area near Corofin on the afternoon of the 27th where a few late *Euphydryas aurinia* Rott. were still flying with many *Maniola jurtina* L. and some further very bright *P. icarus* Rott. For the remainder of our stay we concentrated on the very wooded ground lying a few miles inland known as Cooncloose near Kiltfenora. On the 28th we found both *Z. purpuralis* Brünn. and *Z. filipendulae* L. well on the wing in this attractive locality. *E. lanestris* larvae were also here in strength. On June 29 this area yielded the first *Argynnis aglaia* L. with the males much brighter than those normally seen in England or Scotland. Ringlets, Meadow Browns and Speckled Woods were in plenty and we also flushed an occasional *Epirrhoë tristata* L. The last day of June produced a deluge so that no collecting was possible till after dark, when we once more ran our light in a sheltered spot down the hill from Ballinalacken Castle. We again saw most of the species we had noted our first night, including *P. bractea* Schiff. and *S. irrorella* L. as well as *Peridroma porphyrea* Schiff., *Thyatira batis* L. and *Plusia pulchrina* Hübn.

The second half of the year started finer but very blustery when we motored to the coast at Doolin and picked a lot of

*Silene maritima* which was inhabited by a lot of *Hadena capsophila* Dup. and a few *Eupithecia venosata* F. but we could not detect any *Hadena caesia* Schiff. Later on July 1 we revisited Clooncoose where one of the open glades was alive with *A. aglaia*, a few *L. sinapis* with many Ringlets and Meadow Browns. Our final day in the Burren was spent at Ballyvaughan, where we collected some full-fed *E. lanestris*. We had our last night by the coast once more and saw nearly thirty species up to 12.30 p.m., the only newcomer being *Apamea sublustris* Esp. We also collected a lot of heads of the Wood Valerian which turned out to be full of larvae of *Epithecia valerianata* Hübn. which soon all pupated. We had run our trap at the Ballinalacken Hotel on seven nights, but apart from the first two nights the results were very disappointing. The nights of June 25th and 26th both only produced forty moths among which were *Deilephila porcellus* L., *D. elpenor* L., *Laotoë populi* L., *Hadena nana* Hufn., *Plusia pulchrina* Hübn. and *Hepialus velleda* Hübn.

On July 3 in rather cloudy but mild weather we set out for Killarney, having abandoned a tentative visit to Galway and Mayo owing to the very unfavourable conditions. We reached that famous resort in the afternoon and made the Muckross Hotel our haven. I had last stayed there in 1956 with the late Eldon Ellison, but compared with that occasion we found the hotel and, in fact, the whole area deserted of tourists. Fortunately, we were given facilities to run our static trap at the back of the hotel to very good advantage, while we were also lucky in getting permission to collect after dark in the Kenmare Demesne which we first sampled on the night of our arrival, seeing 65 species up till 1 a.m. We placed our light just off the route usually followed by the jaunting carts where there was a big growth of holly and yew which had proved so prolific in 1956. At dusk we came upon quite a flight of the tiny geometer *Perizoma blandiata* Schiff., many of which also patronised our sheet later on. Among other early arrivals was a single *Eustrotia bankiana* F. (*argentula* Hübn.) to be followed by quite an influx of *Bomolocha fontis* Thunb. Another welcome visitor was *Perizoma taeniata* Steph. with one at the big m.v. light and a further example at the Heath trap set well among the yews. Other species of note on this very productive occasion were several *Tethea fluctuosa* Hübn., a couple of the large *Stauropus fagi* L., a huge female *L. populi* L., also *Notodonta dromedarius* L., *Atolmis rubricollis* L., *Leucania pudorina* Schiff., *Abraxas sylvata* Scop., *Eupithecia subumbrata* Schiff., *E. plumbeolata* Haworth, *E. pulchellata* Steph., *Ligdia adustata* Schiff., *Cleora lichenaria* Hufn. and a large assortment of *C. repandata*. July 4 turned out a much better day though we only penetrated after lunch as far as Ladies' View without seeing anything special on the wing. A second evening in the same spot in the demesne provided another good harvest, though not quite as rich as on the previous night. *P. blandiata* was again

numerous at dusk and we saw one more *P. taeniata* as well as several somewhat dark *Scopula immutata* L., with *Thyatra batis* L., *Ectropis consonaria* Hübn., *Nudaria mundana* L. and *Geometra papilionaria* L. The morning of the 5th we motored over to Glenbeigh for lunch at the Towers Hotel, where we had stayed in 1962, then back via Glencar and Lough Caragh. That night saw us once more in the demesne, this time on the neck of land carrying the road that divides the two large lakes, but it was not nearly such a good night or productive locality, as only just over thirty species were noted, among which further *B. fontis*, *T. fluctuosa* and *E. consonaria*, as well as a large female *S. fagi*. *Polia nebulosa* Hufn., in a very pale form. *Perizoma alchemillata* and the usual concourse of *C. repandata* L. Our last morning, of July 6, was spent in the demesne among the yews which we tapped assiduously in the hope of flushing the little *P. taeniata*, a *modus operandi* which had been so successful in 1956 and was not in vain on this occasion, as we saw quite a number dashing off mostly out of reach, but only three found their way into our nets. The verges of the woods and long grass were abounding with *Maniola jurtina* L. and *Aphantopus hyperanthus* L. That afternoon we revisited the high ground above Ladies' View, where we found *E. bankiana* F. still fairly numerous together with *Jaspidia pygarga* Hufn. (*fasciana* L.) and *S. immutata*. En route we had examined the old birches lining the main road and found several empty pupa cases of *Aegeria scoliaeformis* Borkh. protruding from the larval burrows. Our final night in the demesne, again in the yew and holly region, turned out quite prolific. Among 38 species seen, by far the most outstanding was a couple of *Deileptenia ribeata* Clerck (*abietaria* Schiff.) apparently according to Mr Baynes (1964), a great rarity in Ireland, which had never been observed in the Killarney district and only previously known from Cos. Wicklow, Leix and Kildare with its last Irish record in 1944. We had a further singleton *P. taeniata* at our light, also a *Plusia bractea*, many *C. lichenaria*, with several *B. fontis*, *L. adustata* and a couple of *T. fluctuosa*.

As already mentioned, we ran our static trap the four nights at Muckcross Hotel with quite phenomenal results. The first night saw in it just over 500 individuals, comprising 77 species of the macros and a total for the short period of nearly 1500 moths of just on 100 species. Possibly the most noteworthy visitors were three *Eilema deplana* Esp. which had only been recorded from Killarney and was last seen there in 1944 according to the 1964 list. Both the Elephant Hawks (*D. elpenor* and *D. porcellus*) were fairly prevalent. Among the Notodonts were several *S. fagi*, also *Notodonta ziczac* L., *Pheosia tremula* Clerck, *P. gnoma* F. and a female *Harpyia furcula* Clerck. *Arctia caja* L. was quite numerous, as also were both the Ermines (*Spilosoma menthastri* L. and *S. lutea* L.). Among the noctuids the numbers of *Agrotis exclamationis* L. and *Apamea monoglypha* Hufn. outstripped all others.

Among the more notable of this Family was a single late *Apatete alni* L., *Peridroma porphyrea* Schiff., *Hadena contigua* Schiff., *Eumichtis adusta* Esp., *Graphiphora augur* F., *Apamea epomidion* Haworth., *Leucania straminea* Treits., *Anaplectoides prasina* Schiff., *Polia nebulosa* Hufn., *Pyrrhia umbra* Hufn., *Unca trigemina* Werneberg, *Plusia bractea* and *B. fontis*. The geometers were represented by *Abraxas sylvata* Scop., *Lygris populata* L., *Cleora lichenaria* Hufn., *P. blandiata* Schiff., *Bapta temerata* Schiff., *Eupithecia plumbeolata* Schiff., *E. subumbrata* Schiff., *Chloroclystis coronata* Hübn., *Ellopia fasciaria* L., and a late *Gonodontis bidentata* Clerck.

We set out from Killarney early on July 7, a glorious day with the thermometer in the 70's and, travelling via Mallow, Lismore and Dungarvan we reached Tramore in the afternoon and revisited Ballydwane Cove near Bunmahon, which had proved so productive in 1965 and again in 1963, when Mr Messenger was on his own. This very sheltered spot did not disappoint us either on this occasion. Of forty species seen up till 1 a.m. the more interesting were a fresh example of *Hadena caesia* Schiff. and several *H. capsophila* Dup., also a couple each of *Agrotis trux* Hübn. and *Ammogratis lucernea* L. besides *Philudaria potatoaria* L., *Malacosoma neustria* L., *Plusia bractea* Schiff., *Pseudoperpna pruinata* Hufn., *S. immutata* L., *Gnophos obscurata* Schiff., and *Chiasmia clathrata* L.

On July 8 we left the Grand Hotel at Tramore and after a stop for lunch at Waterford we made for Rosslare, where we put up at the newly built Great Southern Inn, but it was far too wet and windy to try the sandhills after dark. The following day, the 9th, we crossed over to Fishguard, arriving about 3 p.m., and proceeded via Carmarthen to the Gower Peninsula, staying the night at Langland Bay in the very well-appointed Osborne Hotel. After dark, we ran our light in a very sheltered car park situated in a valley between wooded cliffs at Caswell Bay. I had marked it down on a visit in 1967 as a most propitious-looking locality which provided us with 45 species up till 12.30 a.m. *Abraxas sylvata* Scop. was especially numerous, as also was *C. repandata* L. The two Golden Y's (*Plusia iota* L. and *P. pulchrina* Hübn.) appeared with *Lophopteryx camelina* L., *Mittochrista miniata* Forst., *A. prasina* Schiff. and the geometers *Cidaria fulvata* Forst., *Lygris pyraliata* Schiff., *Anaitis plagiata* L., *Ligdia adustata* Schiff., and *Eupithecia haworthiata* Doubl., also a large female *Hepialus humuli* L. was nearly the last visitor. The following morning, July 10, in very wet conditions we headed into Swansea and on across the Severn Bridge to Chippenham and Castle Combe for lunch, eventually reaching Surrey after what had proved to be a very enjoyable and, on the whole, successful trip with two weeks in Eire.

On my return my first outing was on July 12 to Alice Holt Forest with a temperature of over 80°F. In spite of arriving at an early hour *Apatura iris* L. was already flying



at the top of the higher trees, though an occasional one swooped low, especially the females which were already on the wing. *Thecla quercus* L. was plentiful, and there were a few *Limenitis camilla* L. That afternoon *Plebeius argus* L. was in great plenty on Chobham Common. The 13th saw me once more at Lucas Green near Bisley, where my light attracted 55 species including *Hyloicus pinastri* L., *Drepana binaria* Hufn., *Eilema complana* L., *Apamea scolopacina* Esp., *Lygephila pastinum* Treit., *Laspeyria flexula* Schiff., *Parastichtis suspecta* Hübn., *Sterrrha sylvestraria* Hübn., *Xanthorhoë quadrifasciaria* Clerck., *X. unangulata* Haworth, and *Bupalus piniaria* L. I revisited Alice Holt on the 16th, with the Rev. Anthony Harbottle and his eldest son. Again, in spite of less sunny conditions, the Purple Emperors obliged us with quite a good display round the treetops even in the afternoon. After another very warm day on the 17th, some fifty species came to light in my sister's garden at Virginia Water among which were several *Leucania pudorina* Schiff., *Cosmia pyralina* Schiff., *Apatete megacephala* Schiff., *A. leporina* L., *Nycteola revayana* Scop., *P. suspecta*, *X. quadrifasciaria* Clerck and *Ellopiia fasciaria* L.

On July 18, a further very fine day, I set out for East Suffolk, which I last visited in 1966. Travelling via Colchester and Ipswich I reached Southwold in the early evening, putting up at the Randolph Hotel nearby at Reydon which had been my haven on several previous occasions. That night saw me and Mr H. E. Chipperfield on the edge of the fresh marsh at Walberswick where a wartime pillbox still stands. It was mild and muggy and insects came flocking to the light at once. In fact it turned possibly the best night for numbers I have had in this region with no less than 95 species up till 1 a.m. One of the most unusual combinations was having a Goat Moth (*Cossus cossus* L.), and the Leopard (*Zeuzera pyrina* L.) on the sheet together. Besides a female *L. populi* L., the only Hawkmoth, *P. potatoaria* L. arrived in plenty soon after dusk with several *Comacla senex* Hübn., and *Phragmatobia fuliginosa* L. Among the many noctuids were a number of *L. straminea* Treits., and *Arenostola phragmitidis* Hübn. together with *Apatete leporina* L., *Hadena suasua* Schiff., *Cucullia asteris* Schiff., *Graphiphora augur* F., *Pyrrhia umbra* Hufn., *Plusia iota* L., and *Zanclognatha cribrumalis* Hübn. The geometers provided many *Eupithecia succenturiata* L., *Chlorclystis coronata* Hübn., *Philereme vetulata* Schiff., a rarity in Suffolk, *Euphyia unangulata* Haworth, *Chesias rufata* F., *Cidaria fulvata* Forst., *Scopula imitaria* Hübn., *Eupithecia linariata* Schiff. and *E. haworthiata* Doubl. A notable absentee was *Nonagria neurica* Hübn., which only appeared a week later. A very dull and wet day greeted me on the 19th when I went to Thorpe-ness in the afternoon, but when later that day it was my night venue with Mr George Baker, insects flocked to our light. The operations opened with a remarkable influx of *Lygephila pastinum* Treits to be followed by many *P. potatoaria* L. and

some fifty other species until just after midnight. These included several *Comacla senex*, *M. neustria* L., *Euproctis chrysoorrhæa* also *Coenobia rufa* Haworth, *Leucania straminea* L., *L. pudorina* Schiff., *X. unangulata*, *Z. cribrumalis*, *Pyrrhia umbra* Hufn., *Procus literosa* Haworth, *Cidaria fulvata* and *E. succenturiata* L. The morning of July 20, a very warm one, we spent searching local poplar trunks for *Sesia apiformis* Clerck, of which there were many emerged pupa cases, but almost on the last tree we looked at was a newly hatched female. That evening very little came to light on a marsh on the outskirts of Southwold. During my three nights in this area Mr Baker very kindly let me run my static trap in his garden at Reydon. It attracted just on 600 moths comprising some 80 species. Among the visitors were several very big *Sphinx ligustri* L. as well as *L. populi* L., *P. potatoria*, *Euxoa tritici* L., *Hadena lepida* Esp., *H. bicolorata* Hufn. (*serena* Schiff.), a couple of *H. compta* Schiff., *H. suasa* Schiff., *Apamea ophiogramma* Esp., *Polia nebulosa* Hufn., *C. rufa*, *Thalpophila matura* Hufn., *L. flexula* Schiff., *Cucullia umbratica* L., *Plusia iota* L., *Philereme undulata* L., *Crocallis elinguaris* L., *Itame wauaria* L., and *Bupalus piniaria*. On July 21 I made my way back to Surrey via the Breck area, where I searched a number of patches of *Silene otites* in vain for larvae of *Anepia irregularis* Hufn. A large lucerne field in full bloom harboured very few Whites. On the 23rd, Mr Michael Tweedie paid me a visit and we went over to Alice Holt in the afternoon and once more several *A. iris* were still flying. Also a lot of *Theclus quercus* L. In the Petworth area on the 24th many Ringlets and Meadow Browns were on the wing.

On 26th July I flew to Nice on the Riviera and thence motored into Spain returning on 11th August with General Sir George Johnson. The following evening Mr George Woollatt ran his large m.v. light in his garden near Chobham. Just 40 species of the macros were noted. There had been a big summer emergence of *Harpyia furcula* Clerck and half a dozen of these Kittens arrived on the sheet like small bullets, together with several Ruby Tigers also *Pterostoma palpina* Clerck, *Notodonta dromedarius* L., *Coenobia rufa* Haworth, *Cosmia affinis* L., *Eupithecia linariata* Schiff., *Deuteronomos fuscantaria* Stephens, and *Hepialus sylvina* L. Some very warm weather was prevalent in the middle of August when I paid a further visit to the New Forest on the 18th, staying again with Admiral Torlesse. In spite of a downpour that evening quite a concourse appeared at our lights in Rhinefields especially of *Lymantria monacha* L. and *Eilema deplana* Esp. Among the few Geometers were *Cosymbia linearis* Hübn. and *Semiothisa alternaria* Schiff. which also appeared in my host's trap at Sway. Many insects also graced Mr A. Russwurm's trap in Brockenhurst and once again there were several Sallow Kittens. The weather conditions were very unfavourable on the 19th when I went to see Mr Gilbert Nixon who has just come to live near Rhinefield House. Many pupae of *Polygonia*

*c-album* L. were hanging on a batch of nettles and also parts of his greenhouse, and it was most encouraging to learn that he had recently seen several ab *valezina* of *Argynnis paphia* L. together on a bramble clump in his garden. August 21 saw me once more in Kent on a late summer visit with headquarters at Appledore, where I ran my static trap to very good advantage. The evening of the 22nd Mr Michael Tweedie accompanied me to collect at Dungeness where we had as usual a number of Grass Eggars of both sexes to light with several Ruby Tigers and *Epirrhoë galiata* Schiff. Very little of note was on the wing in the Folkestone district on the 23rd, but at night I saw a number of insects at light by the Military Canal at Appledore including Elephant Hawks and Drinkers, also *Eilema griseola* Hübn. Running the static trap the three nights produced over seven hundred moths including some 450 on the 23rd. There were a good many *Arctia caja* L. with several *Nonagria sparganii* Esp. also *Arenostola pygmina* Haworth, *Amathes sexstrigata* Haworth, *Amphipyra berbera* Rungs and *A. pyramidea* L., *Caradrina ambigua* Schiff., *Plusia festucae* L., *Catocala nupta* L. and *D fuscantaria*. I travelled back to Surrey on a very fine and sultry day stopping en route on the downs near Gomshall where I met Mr Russell Bretherton and we were pleased to find a number of *Hesperia comma* L. still flying, as it had had a very good comeback in several of its old haunts. There were quite a number of *Lysandra coridon* Poda on the wing with *Polyommatus icarus* Rott. and *Aricia agestis* Schiff. I was at Shoreham in Sussex on the 26th. Chalk-hill Blues were still in fair plenty with a number of fresh ones and also a very promising emergence of *Lysandra bellargus* Rott. More warm weather ended the month when I went, on the 29th, to the Hague to attend the International Ornithological Congress which lasted the subsequent week till 6th September.

The first fortnight of September was far from propitious with very cool and windy period when little profitable collecting was carried out nor was anything special on the wing when I stayed with my relations near Blandford on the 12th. However, a very marked change began during the second half of this month and welcomed Mr Bretherton and myself when we motored to our favoured part of South Devon at Hope Cove on 18th September, a very warm day. In fact it turned out one of the most glorious weekend periods I can remember at this time of the year with daily temperatures in the 70's. The following morning we walked down Soar Mill Cove in the direction of Salcombe, where many *Aglais urticae* L. were flying on valerian with a large number of Whites, mostly *Pieris napi* L. and *Pararge aegeria* L. The afternoon we visited the sandhills at Bantham where we found a bower of ivy smothered with Red Admirals and accompanied by a couple of Painted Ladies. A further superb day greeted us on the 20th with the thermometer at just 80°F when we walked over the downs near Bolt Tail where many fresh *Pieris napi* and *P. aegeria* were to be seen, but searching under rock spurrey along a wall failed to

yield any larvae or pupae of *Hadena barrettii* Doubl. and it was surprising that no full-fed larvae of the Fox Moth were sunning themselves on the cliffs. That evening we went over to Slapton to visit Mr Geoffrey Cole who set up two Heath traps in his garden besides his static mercury vapour one which later that night attracted a couple of *Eupithecia phoeniceata* and in the morning he found a huge *Convolvulus* Hawk at rest on one of his windows nearby. Our final day in this delightful region was also spent with Mr Cole at Slapton along the undercliff which was alive with *Pyrameis atalanta* L., *P. cardui* L., *A. urticae* L., the three common Whites and even *P. icarus* Rott. and *Heodes phlaeas* L., but there was no sign of Clouded Yellows. Our static trap run as before outside the Cottage Hotel at Hope Cove attracted just 400 insects in the four nights. Among the more interesting visitors were several *Peridroma porphyrea* Schiff. (*saucia* Hübn.), *Leucania l-album* L., *Gortyna flavago* Schiff., *Eumichtis lichenea* Hübn. and *Scopula promutata* Guen, also single examples of *Rhizedra lutosa* Hübn., *Amathes glareosa* Esp., *Antitype xanthomista* Hübn. and *A. flavicincta* Schiff. as well as quite a visitation of *Plusia gamma* L. on the last two nights. This usually very prevalent insect had been hitherto very scarce. We had searched local ivy bloom after dark, but it was virtually deserted. We set out from Devon early on 22nd September on yet another grand day and made our way via Bridport, Dorchester and Ringwood to the New Forest where tried in vain for larvae of *Cosymbia orbicularia* Hübn. on sallow in a spot where it used to be fairly common. Later that day we continued our journey back to Surrey after a very enjoyable sojourn in the south-west.

The last week of the month was still favoured with summer weather with just over 80° F registered on the 28th, but conditions deteriorated at the start of October. However, they improved when I joined Mr and Mrs J. A. C. Greenwood at Swanage on the 9th for what was virtually the last long-distance venture of the season. That night produced a couple of *Lithophane leautieri* Boisd. to Heath lights placed under some large macrocarpa trees, while the static trap, set also in this vicinity, attracted several more of this species which seems to be increasing its range rapidly in the south of England. *Leucania l-album* L. was once more well to the fore with *G. flavago* and *E. lichenea*, also *Aporophyla nigra* Haworth and *Omphaloscelis lunosa* Haworth. Our second night did not produce any more *L. leautieri*. After I had returned to Surrey on 11th October the warm spell again set in and a number of insects came to light at Virginia Water the next night, including *Tiliacea aurago* Schiff. and *T. citrigo* L. The rest of October was on the whole very mild and sunny, but providing a distinct paucity of autumn insects. November too was congenial with very few frosts. Our final operations of the season saw me and Mr R. Bretherton on the down at Ranmore Common on 20th November when we had a few *Poecilocampa*

*populi* L. to light with some *Erannis aurantiaria* Hübn. and the two Winter moths (*Operophtera boreata* Hübn. and *O. brumata* L.) but no *Ptilophora plumigera* Schiff. were forthcoming, though large numbers of this insect were seen in the Chilterns in mid-November.

Thus ended a very mixed year which started with a very late spring but eventually had a very warm and prolonged summer with a spate of butterflies at the height of the season. The Hairstreaks above all had a very prolific year, especially the Black and White-lettered (*Strymonidia pruni* L. and *S. w-album* Knoch.) which were both more abundant than they had been for a great many years. But on the negative side was the remarkable absence of most of the commoner migrant species, notably Painted Ladies and the Clouded Yellow which was virtually unrecorded in 1970. Even the Silver-Y was quite a rarity and hardly any of the normal noctuid migrants appeared.

Three Oaks Shore's Road. 5.iv.71

## Problems around *Vanessa atalanta* Linnaeus

By B. J. LEMPKE

Although after the publication of Williams' classical book (1930) a considerable number of data have been collected about our migrating Lepidoptera, many problems still remain to be solved. There is hardly any species the complete history of which is exactly known. A good example of this is offered by *Vanessa atalanta*. Its life history during the summer months was already described more than two centuries ago. But for the rest hardly any progress has been made.

First there is the question of overwintering. Is the Red Admiral capable of doing so in our latitude? If so to what extent, and have specimens observed here in winter any chance of breeding in spring? From proofs we know that there is very little chance for the butterfly to survive the period from November to May here. I shall only quote a few authors who tried to make it do so rather recently. Jacobs (1957) writes that the butterfly never really enters into diapause, it only rests. Even in strong frost it is immediately active when it is touched, and opens its wings. Specimens which do not react in that way, when they are carefully touched, are dead. All specimens, also those which hibernated in a frost-free cellar, died in the course of January and February. The author concludes that the species cannot survive the five winter months in northern Germany without taking food. It has no diapause, and is only capable of passing a rather long period of bad weather in a state of rest. The least sun beam activates it at once, even at a rather low temperature, and it is capable of flying away.

Burmans (1964) had the same experience at Innsbruck. 40 specimens placed in a dark cellar all died from mid January; none was alive at the beginning of February. But specimens of *Gonepteryx rhamni* and *Aglais urticae* remained alive under